The three-week Gaza War fought between Israel and Hamas, in response to the latter's repeated rocket attacks against Israeli population centers, highlighted many security, economic and diplomatic challenges for Israel. It also raised questions about Israel's energy security and specifically its plan to expend its electric generation capacity as well as about its readiness to become a reliable energy bridge connecting Europe and Asia. These questions rise primarily from the enhanced vulnerability of Israel's south to rocket attacks as manifested in recent weeks. For several years it was only the city of Sderot and other smaller locals that were subjected to attacks by thousands of short range Qassam rockets. In 2007, Hamas, after acquiring long range rockets, expanded its range of fire to include the city of Ashkelon and with the war's outbreak in December 2008, major population centers in the south like Ashdod and Be'er Sheva were, for the first time since the Israel's establishment 60 years ago, under rocket fire. The extended range of Hamas' fire covered some of Israel's strategic and energy infrastructure facilities among them the port of Ashdod, the Ashkelon power station, and even the nuclear reactor in Dimona.

In recent years, Israel's state-owned utility company Israel Electric Corp has embarked on a large-scale program to shift its power generation from oil and coal to cleaner burning natural gas. The Israeli Ministry of National Infrastructure's plan is to increase the share of natural gas in power generation from 20% last year to around 40% in 2012. The decision was controversial primarily due to the unreliable nature of gas supply versus that of coal and oil as well as the insufficient natural gas pipeline and power generation infrastructure. Israel is in the process of constructing a system of 12 natural gas power stations and a network of pipelines connecting them with import gas terminals. Upon completion of the construction project 4 of the 12 stations will be located in areas which are covered by Hamas' current range of fire. (See a map of Israel's Natural Gas Transmission System at http://www.mni.gov.il/mni/en-US/Energy/NaturalGas/NGTransportation.htm)

Israel has no natural onshore gas reserves. The rapidly depleting Yam Tethis offshore field is for now the country's sole domestic source of natural gas. This may soon change with last month's discovery of a
significant gas deposit off the coast of the northern city of Haifa. But until the true magnitude of the discovery is evaluated and the gas becomes available, which could take as long as five years, Israel will be increasingly dependent on imported gas. For now, all of Israel's gas imports come from Egypt's East Mediterranean Gas (EMG), the Egyptian gas exporting company, via the 100-kilometer el-'Arish-Ashkelon pipeline. The gas began to flow for the first time in May 2008 under an agreement signed in 2005 for the supply of 1.7 billion cubic meters a year over 20 years. But dependence on Egypt poses its own challenges. Even before the Gaza War broke out there were signs of potential problems associated with heavy dependence on Egyptian gas. As it is, the Egyptian gas supply is irregular due to the fact that Egypt itself is struggling to meet its own domestic requirements. Add to this the political opposition to Egypt-Israel economic

relations by Egyptian leftists, Arab nationalists and radical Islamic groups. Though Egypt and Israel share full diplomatic relations since the signing of the peace treaty in 1979, the relations are often strained, particularly when tension rises between Israel and its Arab neighbors. Egypt itself faces potential political turmoil and unknown political future as its leader for the past 27 years President Hosni Mubarak is facing his 81st birthday. Should the Mubarak regime be replaced by a less friendly one, Israel's energy security could be easily compromised. Just a few days prior to the war in Gaza, Israel's energy security vulnerability was highlighted when a Cairo court overruled the Egyptian government's decision to allow exports of natural gas to Israel, saying that the constitution gave parliament the right to decide on sales of natural resources. The Egyptian government is likely to ignore the court's ruling but the judicial decision clearly reflects a growing anti-Israeli sentiment within Egypt's political class which could strengthen over time.

With the depletion of Israel's domestic gas supplies accelerating, and without an imminent rise in Egyptian gas imports, Israel could face a power crisis in the next few years. Of course, Israel could always slow down the transition to natural gas by resorting back to coal which is plentiful and its sources are well diversified and do not pose supply constraints. But if Israel is to continue to pursue its natural gas plans it must diversify its supply sources. Three approaches have been under consideration, all of them will now have to be reevaluated in accordance with the security arrangements of the post-Gaza War.

1. Gazan gas

A natural gas deposit off the coast of Gaza owned by British Gas (BG) raised some hopes for a new source of supply. A supply agreement with BG is fraught with political hurdles. First it would entail an agreement with the Hamas government which is likely to continue to control Gaza in the years to come. Even when Israel and Hamas are not actively fighting each other, they do not recognize each other and are not in a position to conclude economic agreements. Israel is also concerned that a gas agreement with the Palestinians would provide Hamas with a steady stream of revenue which could be used to fund the group's terrorist activities and strengthen its military arm. In the aftermath of the war Israel is likely to be even less inclined to help Hamas fill its coffers.

2. LNG

Israel is evaluating the construction of a 4 million tons per year LNG receiving terminal which would enable it to receive gas from a diverse array of countries. The Israeli government recently issued a tender for an engineering survey but numerous obstacles have to be overcome before a project of such magnitude could come to fruition. The Gaza War may have also changed perceptions about the viability of LNG. The main challenge is location. The short Israeli coast line is already overcrowded with residential areas and military bases which do not permit a nearby presence of an LNG terminal. A location on the southern shore of Israel would put such

terminal in Hamas' rocket range and the risk involved is likely to inflate insurance premium to incoming LNG tankers. An offshore receiving terminal is also under consideration but this approach too presents security and technical challenges.

3. Supply of Russian and Caspian Gas from Turkey by a Sea Pipeline

Before the Gaza War Israel held talks with Turkey to create an "infrastructure corridor," a project of about $3 billion, where Israel would import natural gas and water through a pipeline from Turkey's port of Ceyhan. Israel and Turkey signed a memorandum of understanding and decided to carry out a feasibility study to determine the technical and economic aspects of the project. But the Gaza War considerably strained Israel-Turkey relations. Turkey's ruling party, the Islamist ruling Justice and Development Party (AKP) has sided with Hamas against Israel and Turkish Prime Minister Recep Tayyip Erdogan emerged as one of Israel's harshest critics, demanding that Israel should be expelled from the United Nations while it ignored the organization's calls to stop the fighting in Gaza, which he called Israel's "savagery." As tension subsides one can expect an attempt by Israel to repair its relations with Ankara but until this happens it is unlikely that the project would move forward as planned.

The relations with Turkey will also determine whether Israel could become a transit country for Russian and Caspian energy. In the range of Hamas' fire is the 254-kilometer pipeline connecting the Red Sea port of Eilat with the Mediterranean port of Ashkelon. The pipeline is planned to be expanded to bring oil from the Russia and the Caspian region through Ceyhan to Ashkelon and from there to pumped to Eilat and re-loaded onto tankers to be shipped to Asia at a more competitive price and with more capacity than the Suez Canal. Such a plan would not only provide Israel with transit fees but also positions it as an important east-west corridor which reduces tanker traffic in the bottlenecked Suez Canal. It can also open the Indian and Chinese markets to Russian energy and hence reduce Russia's dependence on the European market. But to gain all of these energy security benefits, Israel and both Turkey and the Palestinians will have to mend some fences and work with Egypt, the US, Europe and Russia to establish proper security arrangements that would diminish the risk of another flare up. If Hamas permanently ceases the rocket attacks and adopts a more conciliatory approach toward Israel, a sustainable cease fire can be achieved giving second life to the Trans-Israel Pipeline route. If the rocket threat is not properly addressed and weapons smuggling via the tunnels under the Egypt-Israel border are not stopped, the countdown to a new round of hostilities will soon begin. This will not only diminish the prospects of Israel becoming an energy corridor but also call into question Israel's entire energy security strategy which pins its hope on natural gas.

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